UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
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Ex parte MURALI KRISHNA PUNAGANTI VENKATA and
FRANKLIN REYNOLDS
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Appeal 2009-007302[1]
Application 10/700,365
Technology Center 2400

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Before HOWARD B. BLANKENSHIP, JEAN R. HOMERE, and
STEPHEN C. SIU, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL[2]

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[1] Filed November 3, 2003. The real party in interest is Nokia Corp. (App. Br. 1.)

[2] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

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I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) (2002) from the Examiner's final rejection of claims 1-24. (App. Br. 3.) We have jurisdiction under 35 U.S.C. § 6(b) (2008).

We affirm-in-part.

Appellants' Invention

Appellants invented a uniform and user-friendly framework that, upon receiving requests in different formats from a mobile user, gathers and compiles results from multiple sources to subsequently transmit the results in a uniform format to the user. (Spec. 3, ll. 6-8, spec. 6, ll. 7-17.) As depicted in Figure 4 of Appellants' drawings, upon receiving different types of service discovery queries (406) from a mobile user (402) via a user interface (404), a transform module (408) converts the queries to formats suitable to local and remote service discovery protocols operating via a local network and an Internet host respectively. Upon receiving the results (426) of the discovered services, the transform module (408) converts the results into a uniform format before they are presented to the user (402) via the user interface (404). (Spec. 13-14.)

Illustrative Claims

Independent claims 8 and 15 further illustrate the invention. They read as follows:

8.   A service discovery system, comprising:

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a first service discovery agent coupled to receive service discovery queries in a user format and coupled to transform the user formatted service discovery queries into a plurality of formats each dependent upon a plurality of respective service discovery protocols, wherein the plurality of service discovery protocols include a local service discovery protocol operating via a local network and a remote service discovery protocol operating via an Internet host; and

a second service discovery agent coupled to receive service discovery queries from the first service discovery agent and in response, to provide service discovery responses to the first service discovery agent, wherein the second service discovery agent is coupled to access services discovered by the first service discovery agent.

15.   A network host, comprising:

means for receiving service discovery queries from **a** service discovery agent;

means for discovering services within a domain of the network host in response to the service discovery queries, wherein the domain of the network host includes a local service discovery protocol operating via a local network and a remote service discovery protocol operating via an Internet host;

means for providing information describing the services discovered within the domain of the network host to the service discovery agent, wherein the information is provided in a uniform format that is independent of the vocabularies and behaviors of the local and remote service discovery protocols; and

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> means for accessing services within a domain of the
> service discovery agent.

Prior Art Relied Upon

The Examiner relies on the following prior art as evidence of
unpatentability:

Monroe	6,130,917	Oct. 10, 2000
Tsai	US2005/0078644 A1	Apr. 14, 2005

Rejections on Appeal

The Examiner rejects the claims on appeal as follows:

1.   Claims 8-14 stand rejected under 35 U.S.C. § 101 as being
directed to non-statutory subject matter.

2.   Claims 15-18 stand rejected under 35 U.S.C. § 102(e) as being
anticipated by Tsai.

3.   Claims 1-14 and 19-24 stand rejected under 35 U.S.C. § 103(a)
as being unpatentable over the combination of Tsai and Monroe.

Appellants' Contentions

1.   Appellants contend that the system of claim 8 is directed to
statutory subject matter since one of ordinary skill in the art would readily
ascertain from the Specification that the agents are software modules that are
being executed by a special purpose computer. (App. Br. 12.)

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2.   Appellants contend that Tsai does not teach a local and remote service discovery protocols (SDP), as recited in independent claims 15 and 17. (App. Br. 13-14.) According to Appellants, Tsai only discloses a local SDP for advertising discovered services available within a local network. Further, Appellants argue Tsai's disclosure of an Internet access server is not a remote SDP since it is not an Internet host that operates a remote service protocol that is discovered by a host on a local network. (*Id*. at 14.)

3.   Appellants contend that Monroe does not cure the deficiencies of Tsai as discussed above. Further, Appellants argue that Monroe does not teach translating between different SDPs, as recited in independent claims 1, 8, 19, and 23. (App. Br. 15-16.) According to Appellants, while Monroe discusses translating between different protocols of a source and a destination to thereby automatically reformat data being transmitted therebetween, the reference does not teach that the protocols are SDPs (i.e. for discovering services). (*Id*. at 16-17.)

Examiner's Findings and Conclusions

1.   The Examiner concludes that the system of claim 8 is directed to non-statutory subject matter since the two service discovery agents therein are software modules that are not embodied in a computer-readable storage medium. The Examiner concludes that they are therefore software per se. (Ans. 3, 12).

2.   The Examiner finds that Tsai's disclosure of a service discovery server and an Internet access server teaches respectively the local SDP

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operating via a local network, and a remote SDP operating via an Internet host. (Ans. 13.)

      3.   The Examiner finds that one of ordinary skill in the art would readily incorporate into Tsai's SDPs into Monroe's disclosure of a universal station that translates data formats into compatible formats between a sending station and a receiving station to thereby convert between different protocol schemes. (Ans. 13-14.)

II. ISSUES

      1.   Have Appellants shown the Examiner erred in concluding that the system as recited in independent claim 8 is directed to non-statutory subject matter?

      2.   Have Appellants shown that the Examiner erred in finding that Tsai teaches a remote service discovery protocol operating via an Internet host, as recited in independent claim 15?

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

      1.   Appellants' Specification states the following:

> SD agent 300 may exist within mobile terminal 206 of Fig. 2 to provide service discovery capabilities in accordance with the present invention.

(Spec. 13, ll. 13-15.)

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> [T]hose skilled in the art will be readily able to combine
> software created as described with appropriate general purpose
> or special purpose computer hardware to create a service
> discovery system ...
> The network hosts or other systems for providing service
> discovery functions in connection with the present invention
> may be any type of computing device capable of processing and
> communicating digital information . . . . *Hardware, firmware,*
> *software or a combination thereof may be used to perform the*
> *various service discovery functions.*

(Spec. 23, ll. 8-14.) Emphasis added.

2.   As shown in Figure 1, Tsai discloses a service discovery server
(14) that uses service location protocols to discover what types of services
(fax, printer, Internet) within a network (10) are available to users, and
forwards information about the discovered services to a wireless client
device via a wireless point (12) to apprise the user of the available services
in a suitable format. (¶¶ 10-12.)

IV. ANALYSIS

101 Rejection

Claims 8-14 recite in relevant-part a service discovery system
including a first service discovery agent and a second service discovery
agent. (Br. 21, App'x.) We address representative independent claim 8.
Appellants' Specification indicates that the service discovery functions
performed by the recited agents may be implemented in software, firmware,
hardware or a combination thereof. (FF. 1.) Consequently, we find that the

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claimed agents comprised in the service discovery system can exist solely in software. Reciting descriptive material *per se* (e.g., data structures and computer programs), however, is non-statutory. *See In re Warmerdam*, 33 F.3d 1354, 1360-61 (Fed. Cir. 1994). Therefore, we find that service discovery system of claim 8 is not limited to statutory subject matter under § 101.

We also note that the nominal recitation to a "system" in the preamble does not limit the body of the claim as it only states the invention's purpose or intended use. *See Catalina Marketing Int'l, Inc., v. Coolsavings.com Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002).[3] Additionally, even if the preamble to the "system" were given weight and thus literally fit within the machine or an article of manufacture categories set forth in § 101, that alone is not sufficient to determine if claim 8 recites statutory subject matter. *See In re Ferguson*, 558 F.3d 1359, 1363 (Fed. Cir. 2009). Claim 8 must be construed in its entirety, and, as discussed above, the claim's body recites nothing more than software.

For the foregoing reasons, Appellants have not shown error in the non-statutory subject matter rejection of claims 8-14. We therefore sustain the rejection of claims 8-14.

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[3] *See also Am. Med. Sys., Inc. v. Biolitec, Inc.*, No. 2009-1323, slip op. at 9 (Fed. Cir. Sept. 13, 2010) (citations omitted) (noting that a preamble that "merely gives a descriptive name to the set of limitations in the body of the claim that has completely set forth the invention" has no separate limiting effect).

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Anticipation Rejection

Independent claim 15 requires, *inter alia*, in response to service discovery queries, discovering services within a local SDP operating via a local network and a remote SDP operating via an Internet host. (Br. 15, Claims App'x.)

As set forth in the Findings of Fact section, Tsai discloses, upon receiving a request from a user, a service discovery server determines which services (print, fax, Internet access) within a local network are available for use in response to a user's request. (FF. 2.) It is undisputed that the disclosed service discovery server teaches the local SDP as recited in claim 15. However, we do not agree with the Examiner that Tsai's disclosure of the Internet access server teaches the remote SDP operating via an Internet host. While the Internet access server does serve as a host for accessing the Internet via an Internet protocol, we find that it is not intended to discover what services are available on the Internet in response to the user's queries. In fact, we find that such notion exceeds the scope of the Tsai reference. Rather, the Internet access server is disclosed as another service akin to faxing and printing that can be discovered to be available on the local network as opposed to being a means for discovering remote services. Therefore, to somehow find that Tsai's Internet access server teaches a remote SDP would require us to stretch the reference beyond reasonable bounds. It follows that Appellants have not shown error in the Examiner's rejection of claim 15 as being anticipated by Tsai.

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Similarly, since claims 16-18 recite the limitations discussed above, Appellants have shown error in the Examiner's rejection of those claims.

Obviousness Rejection

Appellants argue that claims 1-14 and 19-24 recite the limitations of claim 15 discussed above, and that Monroe does not remedy the noted deficiencies of Tsai. (App. Br. 15-19.) We agree with Appellants since the Examiner relied on Monroe's disclosure only to teach translating service discovery queries into formats required by the plurality of service discovery protocols. (Ans. 6.) Consequently, we find that the Tsai-Monroe combination does not teach or suggest the remote service discovery protocol as discussed above. It follows that Appellants have shown error in the Examiner's rejection of those claims.

V. SUMMARY

1. Appellants have not established that the Examiner erred in rejecting claims 8-14 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. We therefore affirm this rejection.

2. Appellants have established that the Examiner erred in rejecting claims 15-18 under 35 U.S.C. § 102(e) as being anticipated by Tsai. We therefore reverse this rejection.

3. Appellants have established that the Examiner erred in rejecting claims 1-14 and 16-24 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Tsai and Monroe. We therefore reverse this rejection.

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No time period for taking any subsequent action in connection with
this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED-IN-PART

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